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Ref: 8EPR-N

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Ms. Elizabeth Orlando
OES/ENV Room 2657
U.S. Department of State
Washington, DC 20520

RE: Comments on the Keystone Oil Pipeline Draft Environmental Impact Statement (DEIS)
CEQ#20070343

Dear Ms. Orlando:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Keystone Oil Pipeline Project, prepared by the Department of State (DOS). This letter reflects consolidated comments from EPA Regions 5, 6, 7 and 8, with Region 8 as the lead. EPA's review and comments are provided in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(c), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. The proposed project is to construct an underground crude oil pipeline from Hardisty, Alberta, Canada to destinations in the Midwest United States. The DEIS focuses on only that portion of the pipeline that is within the borders of the United States. The Proposed Action would result in placement of approximately 1,078 miles of crude oil pipeline from the Canadian border to the Wood River and Patoka terminals in Illinois, and an additional 293.5 miles of crude oil spur pipeline from approximately the Nebraska-Kansas state line to the Cushing terminal in Oklahoma. Additional support infrastructure will include 23 pump stations, 42 pipe storage yards, 17 contractor yards and 45 in-line valves.

In its role as a cooperating agency on the development of the DEIS, EPA has worked closely with DOS and commends DOS for its work and coordination efforts. EPA appreciates the significant efforts of DOS in preparing this DEIS, and we want to offer our comments and recommendations in regard to proposed mitigation measures, environmental impact analysis, and alternatives. We have other concerns and comments that are addressed in the enclosed detailed comments. However our main concerns are outlined below.

Mitigation:

The Environmental Analysis section of the document discusses the affected environment, construction and operation impacts, and mitigation for each affected resource. In addition to the measures that Keystone has committed to implement, there are also "recommended measures" listed that the DEIS characterizes "might be necessary to further reduce impacts." We recommend that

Keystone implement the "recommended measures" listed on the following pages, or provide a discussion in the FEIS as to why they are not appropriate or feasible: Water Resources (p. 3.3-27 through 3.3-28); Terrestrial Vegetation (p. 3.5-31 through 3.5-35); Fisheries (p. 3.7-9 through 3.7-11); Threatened and Endangered Species (p. 3.8-24 through 3.8-89); and Reliability and Safety (p. 3.13-31 through 3.13-32, except for bullets #1 and #8).

We also recommend that Keystone implement the Wetlands "recommended measures" (3.4-15 through 3.4-16). However, we recognize there is some overlap among these measures. We recommend that DOS convene a meeting with the resource agencies and Keystone to discuss the recommended wetland mitigation measures in more detail to develop an appropriate set of measures.

Wetlands:

The DEIS identifies more than 1,300 acres of wetlands that would be affected by pipeline construction and operations. EPA recommends the FEIS include additional information in the proposed wetland mitigation plan to demonstrate if the plan will adequately replace lost wetland values and functions. We recommend Appendix B of the FEIS, "Construction, Mitigation and Reclamation Plans," contain more detailed actions or commitments to replace those wetland functions impacted or lost by the pipeline construction and long-term modification of high quality vegetation communities. Finally, EPA recommends the FEIS include a conceptual wetland monitoring plan that will, throughout a period of time, normally 5 years, direct field evaluations of those wetlands crossed by the pipeline to assure wetland functions and values are recovering. The monitoring plan should also include the compensation sites. EPA prefers wetland mitigation take place in areas adjacent or continuous to the project site. If on-site wetland mitigation is not practicable, we recommend off-site wetland mitigation be undertaken in the same geographic area if practicable (i.e., in close proximity and, to the extent possible, the same watershed).

Pipeline water/wetland crossings:

The DEIS identifies the open-cut wet method as the applicant's preferred method for crossing rivers, streams and wetlands. Based on available information, EPA understand that the open-cut wet method has the greatest potential for water quality impacts compared to the other three methods identified in the DEIS. EPA recommends the FEIS further evaluate potential impacts to water quality, aquatic species, riparian and wetland habitat from the various water crossing methods to determine which method would be both praticable and environmentally preferable.

Hydrostatic pipeline testing:

EPA recommends the FEIS include additional information concerning hydrostatic pipeline testing and its associated impacts. We recommend the FEIS include additional information about the occurrence of invasive or exotic species residing in probable source waters, and a discussion of mitigation measures to address the potential impact of transferring waters containing contaminants of concern.

Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Keystone Pipeline DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). This rating is based on EPA's concerns about Project impacts and additional information and analysis EPA believes is needed regarding potential wetland, water quality and air quality impacts. A copy of EPA's rating criteria is enclosed. EPA also believes additional information is needed to fully assess and consider mitigation for the potential impacts of the proposed action.

We look forward to working with the DOS as you prepare the FEIS. If you have any questions, please contact Larry Svoboda, Director of EPA Region 8 NEPA or Dick Clark, our principal reviewer on this project. Mr. Svoboda can be reached at (303) 312-6004, and Mr. Clark can be reached at (303) 312-6748.

Sincerely,

Robert E. Roberts
Regional Administrator

Enclosure

Detailed Comments
Keystone Oil Pipeline Project DEIS

Hydrostatic pipeline testing:

In Appendix B (Construction Mitigation Plans), Section 8.0 "Hydrostatic Testing," EPA recommends that Table 1 (which lists the most probable source waters for the mainline pipeline) and Table 2 (which provides a listing of probable source waters for the hydrostatic testing of the Cushing extension), be revised to include additional information on how to protect these source waters and discharge points from potential releases of non-native and invasive species that could survive the pressures that are developed in hydrostatic testing. To improve the utility of these tables, EPA recommends adding two columns: one column that would provide information about the existence (or absence) of non-native and invasive species residing in the source waterbody and one column that would provide specific instructions for mitigating the impact of transferring waters with contaminants of concern (example below). We recommend that you consult the following website for information regarding the presence or absence of non-native and invasive species - http://nas.er.usgs.gov/queries/StateSearch.asp.

Drainage Basins & Water Sources	Approximate Location Where Pipeline Crosses Water Source	Non-Native & Invasive Species	Sample & Analysis Requirement	Mitigation
Missouri River	431	Myriophyllum spicatum (Eurasian water-milfoil)	ph, TSS, Fecal Coliform, Dieldrin, PCBs	Adhere to NPDES permit. Consult with Department of Conservation on discharge point retention and/or filtration for milfoil.

EPA also recommends that the sample analysis instruction at Appendix B, Section 8.2, 3rd paragraph, be revised as follows:

> The analysis shall determine the ph value and Total Suspended Solids, as well as those specific analytes for which the source waterbody has been listed "impaired."

Air Quality:

Construction Impacts - We recommend that Keystone pursue opportunities to use clean diesel equipment, vehicles and fuels in construction of the project, especially in the nonattainment areas (i.e. Madison County, Illinois and St. Charles, Missouri).

Connected Action – Upgrade of Wood River Refinery, Madison County, IL - The DEIS identifies that the majority of the crude oil from the Keystone pipeline would be refined at the ConocoPhillips Wood River Refinery in Madison County, Illinois. The Wood River Refinery would need to upgrade and expand its current facilities in order to process Keystone crude oil. The DEIS (page 3.12-12) states that, *"Currently, the refinery is undergoing air quality permitting to authorize various changes. . . . The Illinois EPA is considering the refinery project and changes to the terminal as a single project for the purpose of permitting and applicability of federal and state regulations. . . . The application shows that the proposed project would readily comply with applicable state and federal emission standards . .*

The DEIS does not identify the other refineries in the Midwest that would receive the remaining Keystone Pipeline crude oil for processing. We recommend that DOS identify in the Keystone FEIS: (1) the other refineries that may ultimately receive and process the Keystone Pipeline crude oil, (2) the existing and/or new pipeline route/s that could be used to deliver Keystone crude oil to these refineries, (3) whether or not these refineries may need to be upgraded, and (4) any impacts associated with these pipeline routes and/or refineries and associated facilities.

Water Resources:

The DEIS recommends (page 3.3-29): *"Crossing-related cover depths should be maintained for at least 15 feet beyond the channel migration zone, as determined by a qualified fluvial geomorphologist"*. We recommend that Keystone implement this recommended measure and include it in the mitigation plan. However, we also recommend that the fluvial geomorphologist consult with each U.S. Army Corps of Engineers (Corps) office that has jurisdiction and with state resource agencies prior to making these determinations.

Illinois Water Bodies Crossed - The DEIS (page 3.3-21) states that, Appendix J presents 74 water body crossings proposed for the Mainline Project in Illinois. We note that Appendix J only lists 48 water body crossings. Please reconcile this discrepancy in the FEIS.

Appendix K, Impaired Water Bodies in the Vicinity of the Keystone Pipeline Project DEIS - We recommend Appendix K of the FEIS include information on impaired water bodies in South Dakota, which can be found in *"The 2006 South Dakota Integrated Report for Surface Water Quality"* prepared by the South Dakota Department of Environment and Natural Resources.

Wood River Refinery – Waste Water Treatment System - The DEIS identifies the upgrade of the Wood River Refinery as a connected action. The Wood River Refinery upgrade necessitates an upgrade in the refinery's wastewater treatment system. We recommend the FEIS include a discussion of any potential water quality impacts due to these upgrades.

Reliability and Safety:

In the Reliability and Safety section of the DEIS (p. 3.1-31 through 3.13-32), we recommend that Keystone implement the "recommended measures" listed in bullets #1 and #8 as revised below:

For all locations subject to Clean Water Act Section 311, Keystone should prepare a site-specific oil Spill Prevention, Control, and Countermeasure (SPCC) Plan that contains all requirements of 40 CFR Part 112 for every location used for staging fuel or oil storage tanks and for every location used for fuel or oil transfer. Each SPCC Plan is to be prepared prior to introducing the subject fuel, oil, or hazardous material to the subject location.

Oil and other hazardous materials stored in 55-gallon drums or larger containers should be staged or stored in areas with a secondary means of containment.

Geological hazards:

Karst Features / Subsidence - The DEIS includes a recommended measure (p. 3.1-26) that Keystone consult with respective state geological survey departments to identify the most up-to-date sources of data on karst-related subsidence hazards. The DEIS includes a discussion of subsidence hazard risks for South Dakota, Nebraska, Kansas, and Missouri. As the right-of -way (ROW) for the pipeline will also cross into Illinois, we recommend Keystone consult with the Illinois State Geological Survey for the most up-to-date karst related information. We recommend that the FEIS include the results of this consultation, including subsidence hazard risk in Illinois. If karst features (i.e. sink holes, springs) are identified in or near the proposed pipeline ROW, we recommend the FEIS identify any potential impacts to these resources and the avoidance, minimization and compensation mitigation measures that may be undertaken to reduce the impacts.

Terrestrial Vegetation:

In addition to the recommended measures in section 3.5, we recommend all construction equipment be completely washed down when transferring from one potential source of noxious weed contamination into another area.

Cumulative impacts:

The DEIS (p. 3.14-1) includes a description of past, present, and reasonably foreseeable future projects, including three Enbridge expansion projects: Southern Access, Southern Lights, and Alberta Clipper. Based on the recently issued Federal Energy Regulatory Commission (FERC) Notice of Intent to prepare Environmental Assessments for the Southern Lights and Alberta Clipper projects, we recommend the FEIS be updated, as necessary, to describe the purpose and location of these Enbridge expansion projects.

Project Description/ Alternatives:

We recommend the Project Overview Figures in Appendix Q (i.e., Figure 2.2-1, Figures 2.1-10 through 15, and Figures 2.1-18 and 2.1-19) include identifying mile post (MP) numbers, refinery names and locations, pump station numbers existing utility ROW/type/name, and ROW collocation areas in relation to MP numbers.

We recommend clarifying the relationship between the Proposed Alternative and the Route Variations identified in Section 4.4. We also recommend the FEIS identify where the various components of these route variations identified in Section 4.4 are located in the landscape in relation to the project's designated MP numbers found in DEIS Tables 2.1-1 and 2.1-2 (pages 2-1 and 2-3 through 2-4) and Project Overview Figures in Appendix Q.

We recommend adding additional information to Table 4.4-1 (Proposed Mainline Project Route Variations for the Keystone Project) on page 4-12 to include route variation information associated with MP 571.5 through MP 1077.9. The additional information in the FEIS will clarify whether or not an approximately 0.8 mile lateral pipeline would need to be constructed from the Keystone Mainline pipeline to deliver the crude oil to the Wood River Terminal as stated on page 2-6 or to the Wood River Refinery. If a lateral pipeline needs to be constructed, we recommend Figure 4.5-3 (Appendix Q) be amended to depict the proposed location of the lateral and clearly identify which of the two alternatives is the proposed Keystone Mainline alternative in this area.

In addition, we recommend that the DEIS explain in more detail which portions of the 1,078 miles of new pipe for the Keystone Mainline Project would collocate and/or abut the 467 miles of existing utility ROW) mentioned on page 2-1. In this regard, it would be helpful to specifically identify by MP numbers those segments that will be collocated or abutting existing utility ROWs. We also recommend the FEIS include additional information to explain why existing utility corridors were not utilized for approximately 610 miles.